

2. Solid Angle Method

The solid angle method of calculating neutron interaction when performed with equations (b) and (c) yields conservative results. The method is tedious, especially where many difference geometries and spacing are encountered.

The use of Figure V.D.1-3 yielded nonconservative results for long cylinders with close spacing. Therefore, the curves in this figure are not extended below a σ value of 1.0. The equations and Figure V.D.1-3 agree quite well below λ equal to 3.0 and σ equal to 2.0. In order to obtain conservative or safe calculations, it is recommended that equations (b) and (c) be used. For rough estimations of fractional solid angles, Figure V.D.1-3 may be used.